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ABSTRACT

A study was conducted to determine the relationship between fourteen social process variables (relating to perinatal events, early language patterns, parental/home environment, and child behavior patterns) and the reading performance of retarded readers. The subjects were 180 children, aged seven through fifteen, randomly selected from among students at a large midwestern reading clinic. The instrument used to determine reading behavior was the Classroom Reading Inventory; social process data were collected from parent information questionnaires and confirmed in interviews with parents. Analysis of the results indicated that the two best predictors of reading behaviors were birth trauma and being held back in school. The findings regarding the birth trauma variable are supportive of the research on reading disability and complications in pregnancy and birth. The second predictor variable, being held back in school, alludes to a complex and controversial issue. The majority of variables considered in the study were not significant. (GW)

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SOCIAL PROCESS VARIABLES AFFECTING READING PERFORMANCE IN DELAYED READERS

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INTRODUCTION

> "It is essential for those who diagnose and treat reading problems to perceive the relationship between home, environment and reading achievement."
>
> (Smith, 1965)

An adequate understanding of reading problems involves a multi-dimensional analysis of the retarded reader, investigating physiological, psychological and sociological issues. Fry (1976) stated that an insufficient number of reading researchers are interested in sociological

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concerns despite the known influence of socioeconomic status on reading achievement. Entwisle (1976) observed that while there is not much written by sociologists about reading per se, there are still some important notions to be drawn from the field of sociology that have direct application to acquisition of reading skills. Smith (1965) indicated a need for interchange of information between sociologists and reading specialists in order to more adequately conceptualize and research the association of sociological concerns and educational attainment. In this study, a reading specialist and sociologist have addressed one specific area: the relationship of selected social process factors to reading performance.

Social process factors are a composite of socioeconomic, environmental, behavioral and attitudinal variables. The term is more inclusive than "socioeconomic status" though considered part of that notion in the sense that early language, parental/home environment and child behavior are directly influenced by the socioeconomic temper of the home. Socioeconomic status and reading achievement are clearly linked (Lavin, 1965; Walberg & Marjoribanks, 1976). However, social class differences are not the focus of this study; rather, the association of social processes to reading is explored within a reading clinic population which is, in this instance, primarily representative of a middle income bracket.

The selection of variables was based on the findings of recent research which investigates the predictive potential of certain key

variables with regard to reading. Entwisle (1976) noted that the influence of society on language learning, the social nature of rewards and influence of significant others on performance require examination of reading from a sociological perspective. The inclusion of affective variables (attitudes, achievement anxiety and study habits) and "noncognitive" variables (incidence of depressed moods and somatic responses to stressful situations) has significantly improved prediction of reading achievement (Kahn, 1969; Lambert and others, 1976). George (1975) categorized reading facilitating experiences and found them to be strongly influenced by parental involvement. Davis (1971) proposed that one theme in research should be to demonstrate the relationship of several basic variables (cultural level of the home, oral word knowledge and oral reading fluency) to a specifically defined reading behavior - comprehension.

This study was undertaken to determine the relationship between fourteen social process variables and four dimensions of reading performance: word recognition in isolation, word recognition in context, oral comprehension and spelling. For convenience in display, the social process variables are grouped into four categories (see Table 1).

METHOD

Subjects

The subjects of this study were 180 randomly selected case studies from a large, midwestern reading clinic. Ninety subjects comprised the 7.0 - 11.1 chronological age group, with a mean age of 8.8; ninety subjects representing the 11.2 - 15.1 chronological

age group were found to have a mean age of 13.0. No subject of an I.Q. lower than 85 was considered for selection. Of the 180 subjects, 134 were males and 46 were females.

Instruments

The instrument used to determine reading behavior was the Classroom Reading Inventory (Silvaroli, 1973). This test was administered to all subjects and analyzed by one reading clinic director. Social process data were collected from parent information questionnaires and confirmed in interviews with parents.

Regression Analyses

To examine the relationship between social process variables and reading behavior, a series of multiple regression analyses were conducted using the SPSS multiple regression program (Kim & Kohout, 1975). The analyses were conducted in three stages: zero-order relationships, multiple predictors of reading behavior and canonical correlation between zero-order and multiple predictors.

RESULTS

In each of the analyses, the two best predictors of the reading behaviors were birth trauma and being held back in school. The final predictive equations were arrived at based on a selection process allowing only those variables which were significant at the .05 level to be predictors (see Table 2).

DISCUSSION

These findings are supportive of the research regarding reading disability and complications in pregnancy and birth (Kawi & Pasamanick, 1959; Kappelman and others, 1972; and Weiner, 1968). A recent review of studies on precursors of reading disability (Balow and others, 1975) noted that (despite methodological problems) more studies support than fail to support the hypothesis that perinatal stress is related to reading disability. In addition, the subjects of this population were selected from a reading clinic and, according to Kappelman (1972), children who have been referred to a clinic for reading difficulty have significantly more breech extractions, low birth weights and pre-eclampsia in their histories than non-referred children.

Predictions or decisions based on this finding alone are lessened because the correlations, though significant, are quite low. Further investigations wherein the variable is categorized according to type of trauma (prematurity, bleeding in first trimester, unusually prolonged or short labor) could add substance to the current results as prematurity is the only perinatal variable that has been studied extensively.

The second predictor variable, being held back in school, alludes to an extremely controversial issue. To retain a child who is failing can be the best or worst alternative, depending upon the individual; unfortunately, when intervention support is not

available, it is sometimes the only alternative. The issue is complex because the intended academic gain in being retained a year can be thwarted psychologically by loss of self-esteem.

The findings regarding sex indicate that in this subgroup, males performed better than females with regard to word recognition in isolation and spelling. This is supportive of an emerging trend where boys are no longer appearing to be grossly deficient in reading when compared to girls.

With regard to age, predicting a difference in one of the four reading behaviors is supported in one aspect of Piaget's (1963) cognitive development theory. The equal age distinction are exactly coincidental with his dichotomy between concrete operations (ability to apply logical thought to concrete problems) and formal operations (ability to apply logic to all classes of problems). This point of difference has its most obvious implications with respect to reading comprehension or, as Gray (1956) noted, in progress toward reading maturity.

IMPLICATIONS

The majority of variables in this analysis were not significant. This may be due to measurement error as is likely to happen on a truncated scale. In addition, the theoretical notion of social processes affecting reading performance in poor readers is obscured in data which is based on parents' memory of early language, home environment and child behavior. A stricter definition of the variables will yield information regarding parental background (and behavior) and interaction with children as it affects reading.

The construction of standardized social process instrumentation would refine data collection procedures and subsequently increase comparison of results in similar kinds of research. Given adequate development, the use and analysis of such instruments could allow one to confidently confirm or deny causal chains extending from social process variables to reading. The result would be the discovery of individuals who are high risk for learning problems. More important, however, is that the diffusion of knowledge wherein we know (as opposed to suspect) which social process factors are related to reading could result in the design of educational programs in which social structures are altered - something that is badly needed.

TABLE 1

Description of Social Process Variables

Category	Variables
Perinatal Events	Birth order Birth type Mother's age Birth trauma
Early Language	Age of first words Age of first sentences
Parental/Home Enviroment	Mother's education Father's education Divorce Reading in the home Held back in school
Child Behavior	Eating habits Attitude toward school Voluntary reading

Age and sex were treated as control variables.

TABLE 2

Significant Betas for Predicting Reading Performance Variables

Predictors	Word Recognition in Isolation	Word Recognition in Context	Oral Comprehension	Spelling
Held Back	-.260	-.340	-.202	-.272
Birth Trauma	.206	.176	.152	.187
Sex	.197			.177
Age			-.26	
Multiple RSQ	.162	.133	.131	.152

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